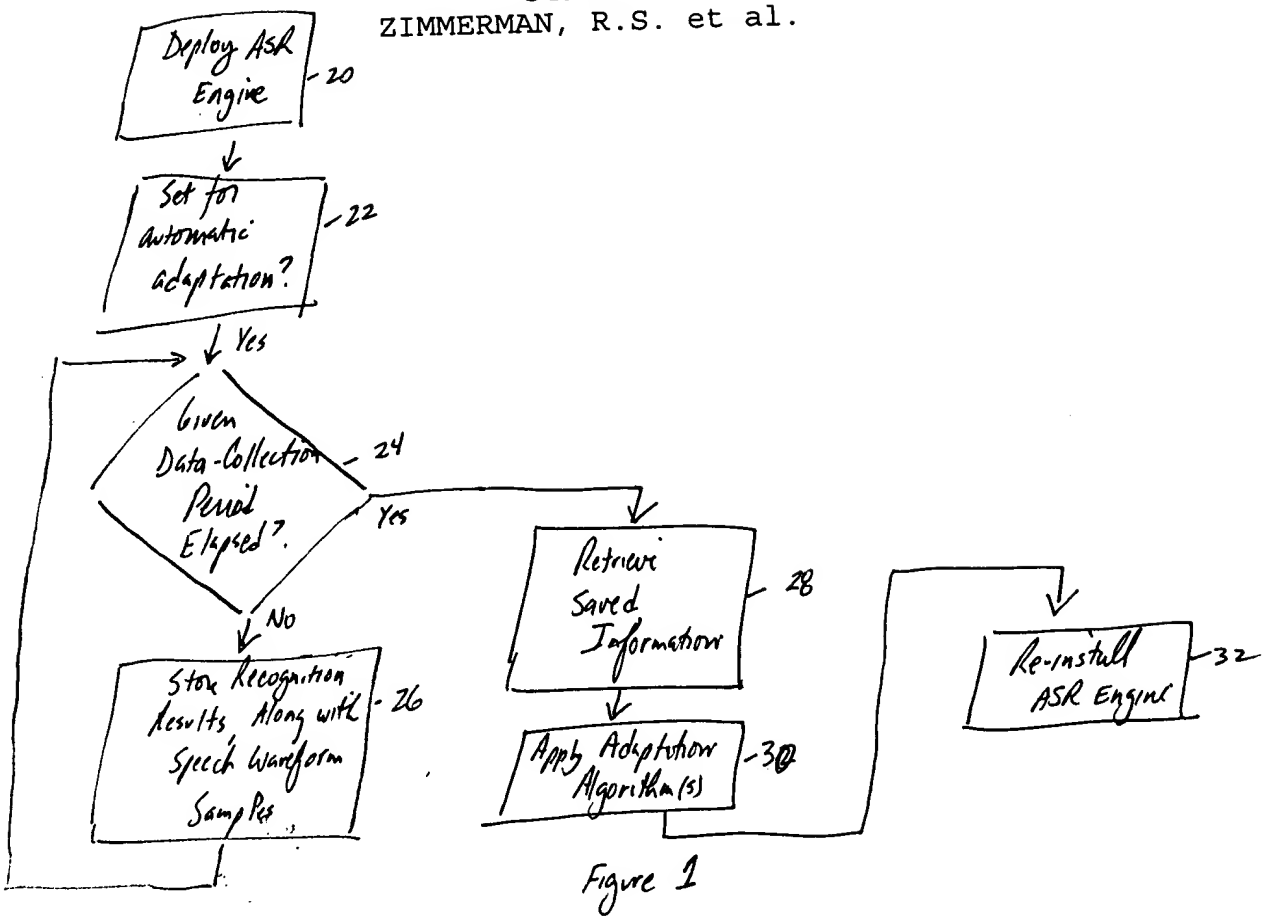

Figure 1

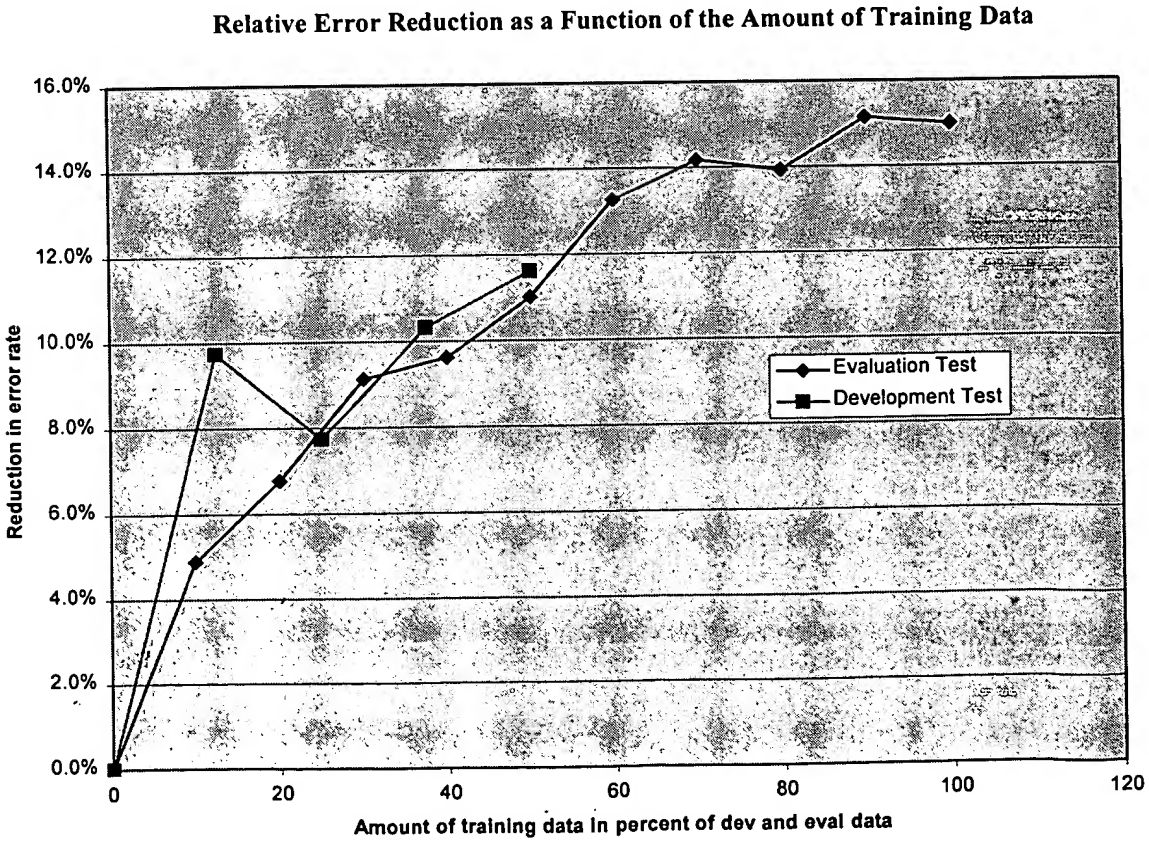

Figure 2

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Table 1A: Recite First-Pass Results on AT&T Dev, Baseline (B) vs. Adapted (A/S) Word Bigram Priors (A = All Dev Test Data, S = Subset Result for confidence > 0.2)

	Word Stats							Sent Stats			
	WER	SER	Corr	Rej	Sub	Del	Ins	Rej	Sub	#Wrd	#Snt
B	34.07	38.81	72.75	1.31	22.61	3.33	6.82	1.19	37.62	10281	4447
A	28.04	31.21	77.86	1.31	17.84	2.99	5.90	1.19	30.02	10281	4447
S	30.21	33.96	75.52	1.31	19.82	3.35	5.73	1.19	32.76	10281	4447

Inclusion

N	Baseline	Adapted	Subset
1	61.19	68.79	66.04
2	71.73	77.38	75.20
3	76.03	80.50	78.86
5	79.78	83.00	82.51
10	83.79	85.47	85.90
20	86.37	87.23	88.33
50	87.07	87.79	89.07

CPU Performance

	#sent	#seg /utt	#bnd /utt	#pushes /utt	#usecs /utt	RT-MHz (P233)
B	4394	353.0	60.3	7.575e+05	1.883	85.1
A	4394	353.0	60.3	5.914e+05	1.889	85.4
S	4394	353.0	60.3	6.539e+05	1.983	89.6

Figure 3A

Table 1B: Recite First-Pass Results on AT&T Eval, Baseline (B) vs. Adapted (S) Word Bigram Priors (S = Subset for confidence > 0.2)

	Word Stats							Sent Stats			
	WER	SER	Corr	Rej	Sub	Del	Ins	Rej	Sub	#Wrd	#Snt
B	34.89	39.55	72.14	0.87	23.49	3.49	7.04	0.89	38.66	10016	4402
S	31.38	35.14	74.67	0.87	20.92	3.54	6.05	0.89	34.26	10016	4402

Inclusion

N	Baseline	Adapted	Subset
1	60.45	64.86	
2	72.01	75.28	
3	76.37	79.15	
5	80.33	82.80	
10	84.03	86.12	
20	86.94	89.10	
50	87.71	89.66	

CPU Performance

	#pushes /utt	#usecs /utt	RT-MHz (P233)
B	7.575e+05	1.883	85.1
S	6.443e+05	1.862	84.2

Figure 3B

Recite First-Pass Results on IVPATT613 Dev, Baseline vs. Adapted Transcriptions

UC 1	UC 2	UC 3	UC 10	UC 20	Lexicon*
86.3	91.4	93.1	95.3	96.0	baseline
88.0	93.2	94.7	97.3	97.8	reqnames_dt+std.fa_prons.+std
88.5	93.5	95.0	97.4	97.8	gen+names_dt+std.fa_prons.+std

Figure 4A

Recite First-Pass Results on IVPATT613 Eval, Baseline vs. Adapted Transcriptions

UC 1	UC 2	UC 3	UC 10	UC 20	Lexicon*
89.1	93.2	94.5	96.6	97.2	baseline
89.2	93.4	94.6	97.3	97.9	reqnames_dt+std.fa_prons.+std
89.4	93.9	95.1	97.3	98.1	gen+names_dt+std.fa_prons.+std

Figure 4B

* Lexicon Descriptions:

reqnames_dt+std.fa_prons.+std:

request_names trained DT to generate alternate transcriptions
added standard transcriptions (official IVPATT dev dict)
filtered with a forced alignment over the DEV data
added standard transcriptions again to create final recognition lexicon

gen+names_dt+std.fa_prons.+std:

same as reqnames, except used gen+names to train DT

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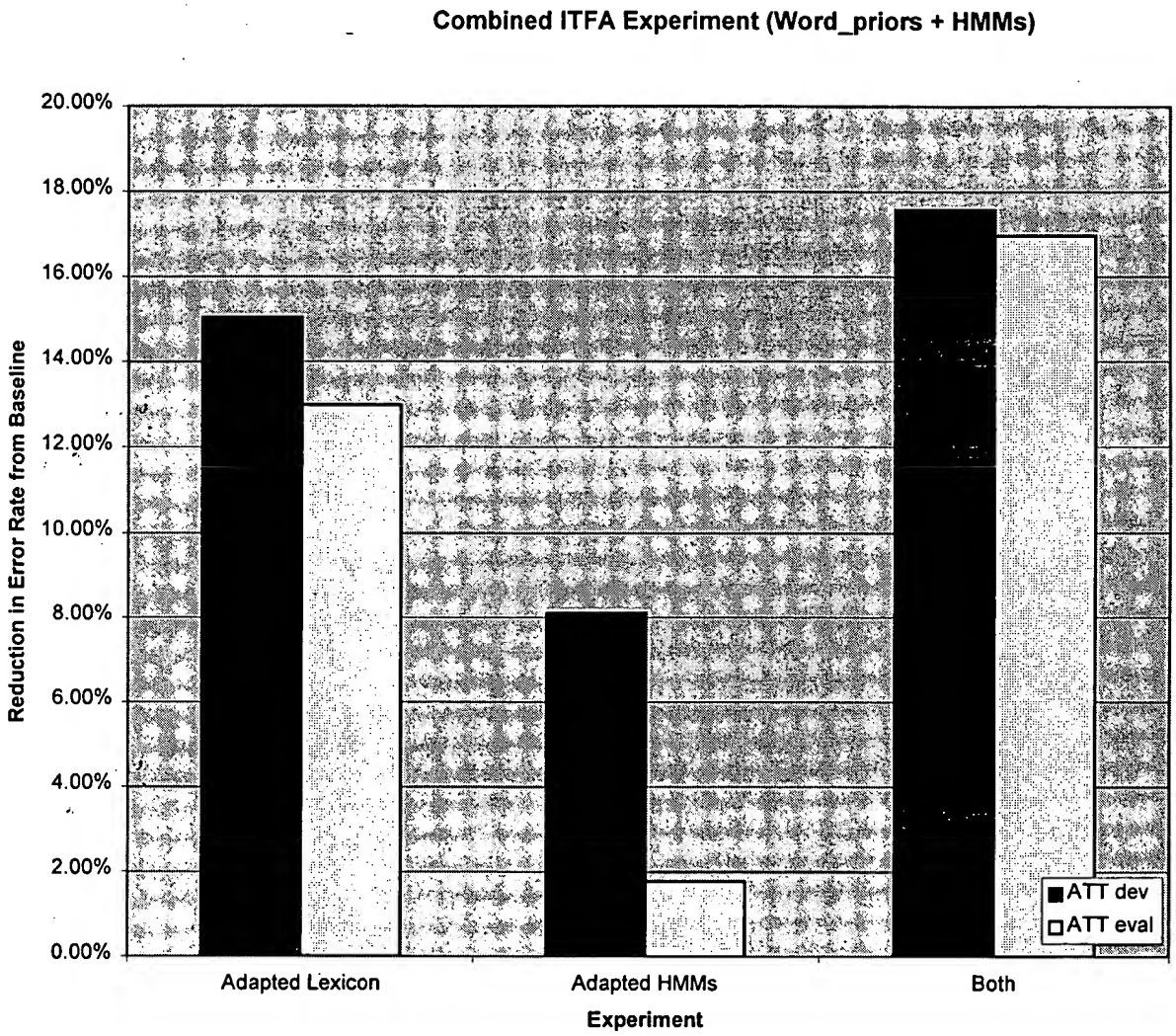

Figure 5